

AMERICAN INVASION AND BRITISH WORKSHOPS

(Special Correspondence of the Deseret News by Frank G. Carpenter.)

Sheffield, England.—I find that the American invasion has made its way into this the very heart of industrial England. Our big steel trust has frightened the factors of Sheffield, and their trade, not only in England, but all the world over, is being effected by it. The English railroads have begun importing American locomotives and American steel rails, and the people here are wondering whether they will not soon be sending them knives and razors as well. The letting of the contracts for the enormous bridges in Africa and Burmah to American firms, astounded them, and they are worried as to their foreign orders. Sheffield produces agricultural machinery, but our American tools are sold side by side with those of English make, and our biggest machine companies have their agents at every country fair to drum the trade. Much of the business is done at the fairs and our men sell direct to the farmers.

AMERICAN MACHINE TOOLS.

One of the greatest specialties of Sheffield is making machine tools, and the American competition is cutting deep into this branch of its business. In a recent article the editor of Fielden's Magazine, one of the best of English industrial authorities, writes that there is hardly a workshop of any importance in the united kingdom which is not using American tools and labor-saving devices. He says he knows of an establishment which recently bought \$100,000 worth of new machinery, two-thirds of which was American. Since the close of the war numerous articles have been published in the papers here as to how the Americans are fast getting the monopoly of the machinery sales for South Africa. It is reported that our trade in the British colonies is steadily increasing, and the complaint is made that the governments of the various British dependencies are giving their most important orders to the United States.

HOW THE BRITISH GUARD TRADE SECRETS.

This condition makes it almost impossible for an American to have access to the English mills. The managers look upon every visitor as a spy. They think he is after their trade secrets and for this reason they will not show him their machinery. I have been refused admission to a number of factories and foundries on various pretexts, although my letters of introduction, some of them from our government departments, show that my mission is simply that of mere gathering and that I am interested in no manufacturing business whatever.

On the other hand the Britisher does not hesitate to borrow ideas and machinery from others, and as a usual thing he borrows without asking. He is quick to take what he can get not only from foreigners, but from his own people. A notable instance of this occurred here at Sheffield as far back as a generation before the declaration of our independence. It was the stealing of secrets of making crucible or cast steel. The originator of this process came from Sheffield. His name was Huntsman, and he lived at a town named Handsworth. He established a factory at Attercliffe for the working of this process, and his descendants still make steel on the same spot. He carefully guarded his secret for a time, but at last one of his trade rivals stole it in the following underhand way: He disguised himself as a beggar, and one stormy night came to the doors of the factory seeking shelter and rest. He looked up rough, that the men in charge did not think there could be any danger from one of his class, and they compassionately admitted him. He was told he could find the door on the cinder heap. He only pretended to be asleep, however, and through his half-shut eyes took a mental photograph of the machinery and the operations. He watched so closely that he was able to reproduce the process, and he used it to rival the work of Huntsman. I understand that the descendants of this man still own one of the largest iron and steel factories of England, and that

their business was originally based on the work of that night.

KEEP THE ENGLISH OUT!

If I were at the head of an American manufacturing establishment I would be chary of showing my processes to English visitors, especially to those of the same business who are looking for points. Everywhere I go I learn of Englishmen who are being sent to the United States to study our workshops, machinery and methods. A year ago Mr. Arthur Keen of Guest, Keen & Co., and Mr. E. Windsor Richards, a well known metallurgist, made a thorough study of the best American steel plants. The works of Guest, Keen & Co. have been long noted as among the best equipped in England, but what Mr. Keen saw led him to change much of his machinery to American patterns.

I know that a vast deal of American shoemaking machinery is now being introduced into the shoe shops of Leicester and other places. English shoes are being made after our patterns, and American leather is imported that they may be as like American shoes as possible.

In a recent copy of the London Mail I saw that the Newcastle Steel, Coal and Coke company, limited, another of the biggest firms of England, has decided to remodel its works on American lines, at the cost of a million and a quarter dollars. They will adapt our latest details in blast furnace construction and steel manufacture as they have learned them from America. The Mail adds: "By these and other means the company is confident and it will be able to hold its own against any competition, either at home or abroad."

ENGLISH PLANTS WITH AMERICAN MACHINERY.

Another plant which has been modernized is that of Holbeck, Vaughan & Co., but the modernizing in this case has been superintended by an American engineer, and the total cost has been more than two and one-half million dollars.

The English railroads are sending their engineers to America to study our railway methods, and I understand that a commission of English factory men will shortly go from Liverpool to the United States to make a careful investigation of our plants along special lines.

In a recent letter to the London Times Mr. J. Lawrence of the house of commons writes a long statement as to the causes of England's loss of trade, in which he says that it is largely owing to the use of antiquated machinery. He gives an instance in his own factory, saying that while on a visit to America he discovered that we had more economical machines than his own, and that when he returned he broke and threw upon the scrap heap tools which had originally cost \$15,000. His associates objected a the time, but they had since found he was right, for owing to that change the company has paid dividends amounting to over \$5,000,000.

BRITISH ENGINEERS WHO GRADUATE IN AMERICA.

Indeed, it is fast becoming quite the thing to send the graduates from the technical schools here to the United States for practical training. This is what the British Westinghouse Co. did with 50 young Englishmen whom they are now using in their Manchester works. They sent them to Pittsburgh to learn Westinghouse methods, and the managers say that when so trained they become more efficient than the Simon Pure American.

In a speech at Wolverhampton Lord Rosebery recently mentioned how a certain factory had selected from the public schools a number of young men having some knowledge of electricity and engineering and, at its own expense, had sent them to America for a two years' apprenticeship in our workshops to qualify them to be superintendents or foremen of its shops in England.

In short, the English factors are now doing what the Japanese government has been doing for 20 years with hundreds of its promising young men; that is, sending them abroad to learn how to do business. The German manufacturers have long been doing the

John Bull's Biggest Factories Being Remodeled After American Plans—How the English Guard Trade Secrets and How Americans Should Keep Them Out of Our Factories—British Engineers Who Graduate in America—Labor and Its Troubles—Strikes and Their Enormous Cost—Holidays and Drunkenness—Factory Girls Who Go on Sprees—Something About Sheffield, the Chief Cutlery Town of the World.



Sheffield Town Hall.

same thing. You find Germans everywhere studying trade and trade methods. Indeed, it has come to such a pass here that many of the English shops refuse to employ Germans even though they can get them for nothing.

As to sending men to the United States up to the present time, this has been done by the most enterprising firms. The average British manufacturer is still in his kip Van Winkle sleep, although he is beginning to stretch himself and dream of waking up. The most of the class stick to their old machinery and old methods. They insist on doing business their own way and appear to think that they can prosper with the old machinery that their grandfathers used because their grandfathers prospered. This is one of the chief causes of the decline of British industry.

SOME OF THE TROUBLES OF BRITISH LABOR.

In a previous letter I referred to the difficulty which Mr. Stewart, the American who built the Westinghouse works had in getting his bricklayers to lay more than 450 bricks a day. The same difficulty exists as to all classes of English labor. The factory men complain that every workman tries to do as little instead of as much as possible in the time he works. He goes on the principle that there is only so much work to be done and that what is not done today will have to be done tomorrow, and also, that if he does all the work there will be none left for his fellows. The amount of work expected of each man in many cases, which is fixed by trade combinations is the least possible for the weakest and laziest. The minimum wage—that is, that all members of a certain trade shall receive a fixed amount per day without regard to the relative value of

their labor—is upheld, and the rule of one man to a machine is fought for.

ENGLISH STRIKES AND THEIR COST.

Strikes and lockouts are common, and hundreds of thousands of people are affected by them every year. I have before me the figures of such strikes for the year 1900. They numbered 48 and 138,000 people were involved in them. The total loss of work amounted to more than three million days, or, in round numbers, cutting out the Sundays, to the work of one man for about ten thousand years. Recalling the days at eight hours and the wages at only six-pence or twelve cents an hour, the loss in money amounted to more than three million dollars.

The principal causes of strikes were against the reduction of or for the advancement of wages, 93 of them arose from the employment of people outside the unions, or contrary to the rules of the unions, and only six were for a reduction of hours.

All of these strikes were connected

with the trades unions, which are very strong in Great Britain. There are 32 unions here which have altogether a membership of \$35,000, and, in addition, 517 others, the members of which make a total of almost 1,400,000 trades unionists. The men contribute liberally to the unions and the union funds on hand in 1900 amounted, it is estimated, to about \$15,000,000, or to the income of the members of the union for almost two years.

WEEK ENDS AND HOLIDAYS.

One thing that tends to the injury of the English manufacturing industries is what is known as the Week Ends and also the numerous holidays. The Week End is the Saturday half holiday which is common all over this country. No one works after 1 o'clock on that day, and a large proportion of the men and of the women as well, celebrate the time by going on a drunk, which in many cases lasts until Monday. The holidays of the English workman amount to very nearly a month every year. I speak of those taken

voluntarily as well as those allowed by the state. There is but little work done during Easter week, and in this region especially little during the week following Ascension day. Then there is a holiday time about midsummer, and also at Christmas and New Year. The American would celebrate such times in a rational manner, but in a majority of cases the English laborer celebrates them by getting drunk.

DRUNKENNESS IN ENGLAND.

Our people who have not visited the factory centers of England can have no idea of the terrible condition of the working classes as regards the use of intoxicating liquors. Women and girls patronize the saloons almost as much as the men, and you cannot go into a public house without finding from one to a dozen women drinking. There are saloons near all the factories, and at the meal hours the hundreds of factory girls rush for them and sit down with the men and have their beer, gin or whisky with their meals. They drink at noon and at night, and many drink too much.

The average man, when he receives his wages lays aside a certain amount for his drink over Sunday. If he makes \$10 a week he may give his wife \$5 for the household expenses and reserve the other \$5 for the public house, where he sits and guzzles. In many cases he proffers his spree till Monday, and the factory then looks for him in vain. This fact makes English labor very unreliable. The companies dare not contract to finish their jobs in a fixed time, and as a result much of their business is going out of the country.

Again, when the American capitalist has a big job his workmen will turn in and work nights to help him. Here, I am told, the average man works rather against than for his employer, and the more skillful a man is the slower he works.

ENGLAND'S BIG DRINK BILL.

For fear what I have said about English drunkenness may be disputed I have looked up the national drink bill for one year and I find that it exceeds that of any other nation. It amounts to more than \$500,000,000 annually, or almost a hundred dollars per year for each family of five. The amount spent for liquors in 1900 was more than the government revenue of that year and more than the rents of all the houses and farms of the country. Taking out the people who it is estimated abstain from the use of intoxicants, it amounted to about \$35 per head, and two-thirds of the whole was drunk by the working classes. These figures are taken from the London Mail Year Book, which also adds that of all the nations of the world the English drink the most and the Americans the least.

SHEFFIELD AND ITS FACTORIES.

But let me tell you something about this city of Sheffield in which I am now writing. It is the typical English steel manufacturing town, and is the chief cutlery town of the whole world. It is a city of the rich and poor, of many capitalists and tens of thousands of workmen. Its workmen have been doing the same class of work for generations, and they are among the most skilled of their kind. A vast amount of the work is done by hand. I went through one of the largest cutlery establishments and found in it hundreds of blacksmiths pounding out knife blades and razor blades upon anvils, fashioning them just as the country blacksmith does his work at home. I saw the grinding done by hand, and in other little shops the handies were

made and the knives and razors put together in the same way. Much of the work it seemed to me could have been equally well and more rapidly done by machinery.

LIKE PITTSBURGH.

Sheffield makes me think of Pittsburgh. It is about as big as Pittsburgh, and it lies in a nook in the hills at the junction of two rivers. It has hundreds of foundries and factories, and the foundry chimneys rise through the smoke which hangs over it like the ghosts of a dead forest rising in height with the spires of the churches.

The city has good streets, some of which have been recently widened, at the cost of the corporation. It has an excellent car system, which will give you rides for one or two cents a trip. It has a magnificent town hall, which cost \$500,000, and other fine buildings.

The business blocks would do credit to Pittsburgh itself, and in one of the best of them is the American consulate, with the good old American flag flying from the windows.

The United States consul, by the way, is Maj. Church Howe, a business man from Nebraska. He has brought the consulates out of the chaos in which it formerly was and is now pushing American ideas in a most respectable way.

KING PAID ALL BILLS.

Rome—The fun is over, and now come the bills! Who shall pay them? There is no doubt that a certain class of King Victor Emmanuel's subjects are terrible grumblers. Nothing ever goes right with them; the king's civil list is too large, the Russian and German journeys are a useless expense, the people cannot afford a monarch who runs about like William III, etc. However, all these faultfinders are put to rout by the simple fact that the king proposes to pay for his journey himself.

His ministers, when the resolution was announced to them, remonstrated, as energetically as one can with a king, and especially with a king of Victor Emmanuel's character and quiet determination to have his own way.

To one who ventured to remark that the bill for taking his large suite across Europe in his own private car would be apt to mount up alarmingly, he merely said, "I can afford it." Another, who rather tactlessly said that the state "could not allow" their sovereign to pay for his official visits, he gazed for a moment in silence, and then exclaimed: "Am I not the head of the state?" In the end remonstrance was stopped by that tone of finality which he knows how to command, in the words: "Basta! I shall pay everything out of my private purse, and I make a present to the state of whatever advantage may accrue from my visits!"

In their innermost hearts the cabinet cannot but be pleased at this decision on the part of the sovereign. The country likes a surplus in the budget; it is such a recent luxury to them, and the Socialists and subversive parties have always to be reckoned with, as they never lose an opportunity to find fault with the monarchy, so that the state for once will have very substantial advantages without having to pay for them.—Fall Mail Gazette.

MORE SENSATIONAL DEVELOPMENTS EXPECTED TO FOLLOW.

Her. Express

Duchess of Marlborough

Lady Paget



What will be the outcome of the intensely interesting royal romance that is at present agitating the court of Kaiser Wilhelm and creating an immense sensation throughout the civilized world? That young Crown Prince Frederick will be allowed to have his own way and marry Miss Gladys Deacon is considered out of the question. The Duchess of Marlborough, however, at whose palace at Blenheim the lovers met, is an enthusiastic supporter of her beautiful young countrywoman's ambitions. So also is Lady Paget, who introduced Miss Deacon into high society. The young crown prince is as high spirited as is his imperial father, and it is expected that further exciting and sensational developments will follow the most interesting romance that for some time has agitated a European court.



OSBORNE HOUSE.

The work of the converting part of the interior of beautiful Osborne House palace into a convalescent home for army and navy officers will be begun as soon as possible. There is much gratification expressed in army and navy circles over the thoughtfulness of King Edward.